WE CLAIM:

1. A method of ablating tissue in the heart to treat atrial fibrillation comprising the steps of

introducing into a selected atrium an elongated energy emitting element that can be flexed along its length from a generally straight shape into a variety of curvilinear shapes,

exposing the element to a region of the atrial wall while flexing the element into a desired shape,

applying ablating energy to the element to thermally destroy tissue, forming an elongated lesion having a contour that follows the flexure of the element, and

repeating the exposing, flexing and energy application steps at different spaced regions along the atrial wall to form a convoluted lesion pattern comprising elongated straight lesions and elongated curvilinear lesions that direct electrical impulses within the atrial myocardium along a path that activates the atrial myocardium while interrupting reentry circuits that, if not interrupted, would cause fibrillation.

2. A method according to claim 1

wherein in the step of applying ablating energy, radiofrequency electromagnetic energy is applied.

3. A method according to claim 1

and further including the step of introducing a viewing probe into the selected atrium to monitoring the position of the element during the step of exposing the element to the atrial wall.

4. A method according to claim 1

wherein, in the step of introducing the

element, the element is introduced through vascular approach, without opening the heart.

5. A method of ablating tissue in the heart to treat atrial fibrillation comprising the steps of

introducing into a selected atrium an energy emitting element comprising

a three-dimensional array of longitudinal main splines extending in a circumferentially spaced relationship to form a basket, and

one or more transverse bridge splines that periodically span adjacent main splines,

at least some of the main splines having elongated regions of energy emitting material longitudinally spaced among regions of non-energy emitting material, and

at least one of the bridge splines having a region of energy emitting material that intersects a region of energy emitting material on a main spline,

exposing the element to the atrial wall, and

applying ablating energy simultaneously to at least some of the energy emitting regions of the element to thermally destroy tissue and form a convoluted lesion pattern comprising elongated straight and elongated curvilinear lesions that direct electrical impulses within the atrial myocardium along a path that activates the atrial myocardium while interrupting reentry circuits that, if not interrupted, would cause fibrillation.

6. A method according to claim 5 and further including the steps of

introducing into the selected atrium a

second elongated energy emitting element that can be flexed along its length from a generally straight shape into a variety of curvilinear shapes,

exposing the second element to a region of the atrial wall at selected parts of the convoluted lesion pattern, while flexing the element into a desired shape, and

applying ablating energy to the second element to thermally destroy tissue to form an elongated lesion having a contour that follows the flexure of the element and that becomes a part of the convoluted lesion pattern.

7. A method according to claim 5 and further including the steps of

collapsing the three-dimensional array upon itself before the step of introducing the element into the selected atrium, and

returning the array to its three-dimensional configuration before exposing the element to the atrial wall.

8. A method according to claim 5

wherein, in applying the ablating energy, the energy is applied to create iso-electric paths along the main and bridge splines.

9. A method according to claim 5

wherein in the step of applying ablating energy, radiofrequency electromagnetic energy is applied.

10. A method according to claim 5

and further including the step of deploying a viewing probe into the selected atrium to monitor the position of the element during the step of exposing the element to the atrial wall.

11. A method according to claim 5

wherein, in the step of introducing the

element, the element is introduced through vascular approach, without opening the heart.

12. A method of assembling a composite structure for ablating tissue within the body comprising the steps of

creating a template that displays in planar view a desired lesion pattern for the tissue comprising a region of elongated lesions each having a length that is substantially greater than its width and a region that is free of lesions,

laying on the template an array of spaced apart elongated elements overlying each region,

creating energy emitting zones on the elements where the template displays the elongated lesion region,

creating non-energy emitting zones on each element where the template displays the lesion-free region, and

joining elements to form the composite structure.

13. A method according to claim 12

wherein, in joining the elements, the elements are mutually secured together at their distal ends.

14. A method according to claim 12

wherein the step of joining the elements forms a three-dimensional shape.

15. A method according to claim 12

wherein the three-dimensional shape is that of a basket.

16. A method according to claim 12

wherein the steps of creating energy emitting and non-energy emitting zones comprise the steps of making the element from a non-energy emitting material and affixing an energy emitting

material to the element to create the energy emitting and non-energy emitting zones.

17. A method according to claim 16 wherein the step of creating an energy emitting zone comprises coating the non-energy emitting element with an energy emitting material.

18. A method according to claim 12 wherein the steps of creating energy emitting and non-energy emitting zones comprise the steps of making the element from an energy emitting material and affixing a non-energy emitting material to the element to create the energy emitting and non-energy emitting zones.

19. A method according to claim 18 wherein the step of affixing the non-energy emitting material comprises coating the element.

20. A composite structure assembled according to claim 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20.

21. A structure according to claim 20 wherein the energy emitting zone has a length that is substantially greater than its width.

22. A structure according to claim 20 wherein the energy emitting zone form a lesion that has a length to width ratio that is at least 3:1.

23. A structure according to claim 22 wherein the energy emitting zone forms a lesion that has a width that is no greater than about 5 mm.

24. A structure according to claim 20 wherein the energy emitting zone creates a lesion that has a length to width ratio that is in the range of about 10:1 to 20:1.

25. A structure according to claim 24

wherein the energy emitting zone creates a lesion that has a width that is no greater than about 5 mm.

26. A method of assembling a composite structure for ablating tissue within the body comprising the steps of

creating a template that displays in planar view a desired lesion pattern for the tissue comprising at least two longitudinal lesion regions, at least one transverse lesion region intersecting one of the longitudinal lesion regions, and a region that is free of lesions,

laying on the template an array of spaced apart longitudinal elements, with at least one longitudinal element overlying each region where the template displays a longitudinal lesion,

laying on the template a transverse element that intersects one of the longitudinal elements and overlies the region where the template displays a transverse lesion,

creating an energy emitting zone on each longitudinal and transverse element where the template displays a lesion region,

creating a non-energy emitting zone on each longitudinal and transverse element where the template displays a lesion-free region, and

overlaying the longitudinal and transverse elements to form the composite structure.

27. A method according to claim 26

wherein the steps of creating energy emitting and non-energy emitting zones comprise the steps of making the element from a non-energy emitting material and affixing an energy emitting material to the element to create the energy emitting and non-energy emitting zones.

28. A method according to claim 27 wherein the step of creating an energy emitting zone comprises coating the non-energy emitting element with an energy emitting material.

29. A method according to claim 26 wherein the steps of creating energy emitting and non-energy emitting zones comprise the steps of making the element from an energy emitting material and affixing a non-energy emitting material to the element to create the energy emitting and non-energy emitting zones.

30. A method according to claim 29 wherein the step of affixing the non-energy emitting material comprises coating the element.

31. A method according to claim 26 wherein the step of creating an energy emitting zone comprises creating an energy emitting zone having a length that is substantially greater than its width.

32. A method according to claim 26 wherein the step of overlaying the longitudinal and transverse elements forms a three-dimensional shape.

33. A method according to claim 32 wherein, the three-dimensional shape is that of a basket.

34. A composite structure assembled according to claim 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33.

35. A structure according to claim 34 wherein the energy emitting zone has a length that is substantially greater than its width.

36. A structure according to claim 34 wherein the energy emitting zone form a lesion that has a length to width ratio that is at

least 3:1.

37. A structure according to claim 36 wherein the energy emitting zone forms a lesion that has a width that is no greater than about 5 mm.

38. A structure according to claim 34 wherein the energy emitting zone creates a lesion that has a length to width ratio that is in the range of about 10:1 to 20:1.

39. A structure according to claim 38 wherein the energy emitting zone creates a lesion that has a width that is no greater than about 5 mm.

40. A method for ablating myocardial tissue to treat atrial fibrillation comprising the steps of

creating a template that displays in planar view a lesion pattern for the myocardium of the selected atrium, the lesion pattern defining a path that directs electrical impulses to activate the myocardium while interrupting reentry circuits that, if not interrupted, would cause fibrillation, the lesion pattern comprising at least one longitudinal lesion regions and at least one transverse lesion region intersecting the longitudinal lesion region,

laying on the template an array of spaced apart longitudinal elements, with at least one longitudinal element overlying the region where the template displays a longitudinal lesion,

laying on the template a transverse element that intersects one of the longitudinal elements and overlies the region where the template displays a transverse lesion,

creating an energy emitting zone on each

longitudinal and transverse element where the template displays a lesion region,

creating a non-energy emitting zone on each longitudinal and transverse element where the template displays a lesion-free region,

overlaying the longitudinal and transverse elements to form the composite structure,

introducing the composite structure into the selected atrium,

exposing the composite structure to the atrial myocardium, and

applying ablating energy to the energy emitting zones to form the desired lesion pattern in the atrial myocardium.

41. A method according to claim 40

wherein, in introducing the composite structure, the composite structure is introduced by vascular access, without opening the heart.

42. A method according to claim 40

wherein the step of overlaying the longitudinal and transverse elements forms a three-dimensional shape.

43. A method according to claim 42

wherein, the three-dimensional shape is that of a basket.